

Directions: All questions must be completed on loose leaf. A calculator is allowed. Please reduce any fractions to lowest terms. Place a box around your final answer. **ALL WORK MUST BE SHOWN FOR FULL VALUE.**

Part A: Please answer all questions.

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1) Evaluate:

2 marks each

a) $\left(-3\frac{1}{7}\right) + \left(-1\frac{3}{7}\right) \times \frac{1}{2}$

b) $0.4 - (-1.4) \times 0.7 \div (-0.2)$

2) Solve the following equations:

2 marks each

a) $\frac{2}{5}(x+4) = \frac{2}{10}(3x+9)$

b) $\left(-\frac{1}{3}\right) + 2m = \left(-\frac{1}{5}\right)$

3) Solve the following inequalities:

2 marks each

a) $3(x+2) \geq 10 - 4x$

b) $\frac{n}{-8} + 2 \leq -7$

Part B: Please answer all questions. 3 marks each

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1) Natalie will sell her video game system for \$140 to Sylvie. She also offers to sell her video games for \$10 each. Sylvie has saved \$210 in total. How many video games can Sylvie buy from Natalie?

a) Write an inequality to solve this problem.

b) Solve the inequality.

2) When 3 times a number is subtracted from 15, the result is less than 9. Write and solve an inequality to determine the number.

3) Monica is having a party. She estimates that she will need 5 sandwiches for each guest, and 12 extra sandwiches for unexpected guests.

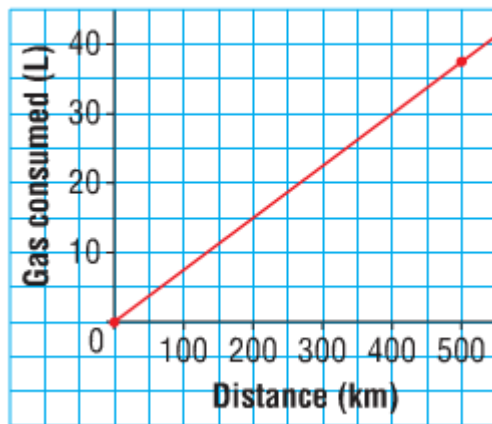
a) Write an equation that relates the total number of sandwiches, T, to the number of guests, p.

b) How many sandwiches will Monica need for 16 guests?

c) Monica has 162 sandwiches, how many guests is she expecting?

4) The Dubois family lives in Regina. The family is planning a family holiday to the West Coast. This graph shows the gas consumption of the family's car.

Gas Consumption



- The distance from Regina to Vancouver is 1720 km. Estimate the volume of gasoline needed to travel from Regina to Vancouver. Explain how you did this.
- To travel from Regina to Prince Albert, the car used about 30 L of gasoline. About how far is it between these two towns?

Part C: Complete question 1 and choose any 2 of the remaining 3 questions.

4 marks each

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1) Solve: $\frac{1}{3} - \frac{2n}{4} + 2 = 1 - \frac{n}{3} + \frac{5}{2}$

2) Melissa has \$45 and she is saving \$19 a week. Rebecca has \$28 and she is saving \$20.50 a week. Both girls want to go on a ski trip that costs \$520. Which girl will be able to pay for a ski trip first?

3) Does each equation represent a horizontal line, a vertical line, or an oblique line? Graph each line.

a) $2x = 10$ b) $y + 2 = -1$ c) $x + y = 3$

4) For each equation below, make a table of values for the given values of x and graph the equation.

a) $3x + y = 9$; for $x = -3, 0, 3$

b) $2x - y = 4$; for $x = -2, 0, 2$